Insight Guide

# Implementation Science

*The Art of Intended Consequences*

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# Executive Summary

This Insight Guide explores how it is possible to bridge the gap between developing evidence-based practices (EBPs) and their routine use in healthcare. Despite continued advancements in healthcare, many advances in care take many years to be implemented, with only a fraction achieving routine use in practice. This gap affects all stakeholders including patients and their families, providers, healthcare companies and organizations, payers, and regulators.

Evidence-based practices (EBPs) in healthcare are those with empirical evidence to support their uptake and routine use and may include programs, practices, treatments, tools, or other interventions supporting advances in the provision of care. Improved implementation of these practices can benefit all stakeholders by enhancing the potential to: maximize effort, optimize spending, ensure equitable application, and improve patient outcomes. A solution to the uptake gap can be found in the field of Implementation Science.

Though not new, Implementation Science is underutilized in healthcare and pharmaceuticals. It involves scientific discipline and multi-stakeholder collaboration to promote the adoption of practices by identifying factors that inhibit or support their uptake. Implementation Science activities include developing implementation strategies, contextualization research, designing and testing interventions, and monitoring deployments, and the effective application of Implementation Science principles can deliver significant benefits. There are challenges when engaging in Implementation Science, such as limited contextual assessments, preconceived solutions, complexity, and lack of follow-through, but experience and appropriate processes can mitigate potential missteps.

## The path to full implementation

What is the collective goal of everyone working in healthcare? This may seem too great to capture succinctly, but many would say the aspirational goal is to ensure every patient receives the best treatment available. In the real world there are many factors that can prevent this — whether financial, operational, or social — but if those factors could be managed, minimized, or mitigated, then patients would be much more likely to receive the best treatment. The question is, what is stopping this from happening?

Modern healthcare can deliver treatments and services that would have been unthinkable only a generation ago, and current development pipelines continue to promise new innovations that will improve patient outcomes at an impressive pace. However, one of the biggest issues facing healthcare and patients is the gap between the creation and demonstration of an evidence-based practice and its introduction, implementation, and consistent use in routine healthcare. Many new practices are created and evidence to support their use is demonstrated, but previous patterns suggest that it takes seventeen years, on average, for these practices to be implemented and only a fifth of them achieving routine use in care.[1–3]

*Improved implementation of evidence-based practices can benefit all stakeholders by enhancing the potential to: maximize effort, optimize spending, ensure equitable application, and improve patient outcomes.*

The "evidence to practice" chasm is an issue not only for patients receiving the best possible care, but for all stakeholders. It prevents healthcare providers from having the best tools available, caregivers from receiving the best support, payers from optimizing the impact of their spending, and the companies and systems providing new advances in care from delivering these products and practices effectively.

As healthcare wants the best for all stakeholders, how can this be improved? The answer comes through the application of a discipline that brings greater focus and structure to bridging the chasm through the rigorous, scientific study of the factors contributing to the gap: Implementation Science.

## Implementation Science — not a "one size fits all" answer to implementation challenges

Implementation Science is not new, yet its adoption within healthcare, and particularly within the pharmaceutical industry, is considered to be fairly recent and is not systematic or universal. Its increased use offers great potential value to be gained for all stakeholders to better understand existing gaps.

While not a specific activity nor a general answer for all implementation challenges, Implementation Science is the process of using scientific discipline and multi-stakeholder collaboration to promote the systematic and appropriate adoption of EBPs into routine care by understanding the factors inhibiting or supporting uptake of the practice. Its scope reflects the breadth of activity that can be part of utilizing Implementation Science. However, it is possible to group the types of activities or support that it can offer:

1. **Identification** and/or development of an implementation strategy to support an intervention

2. **Contextualization** research to understand the factors impacting implementation

3. **Design and testing** of interventions and/or implementation strategies or bundles

4. **Deployment** and monitoring of interventions and/or implementation strategies

Deploying some (or all) of these activities can make a significant impact to support implementation of evidence into clinical practice and has the potential benefit to all stakeholders involved.

**Figure 1: Implementation Science — not a "one size fits all" answer to implementation challenges**



**Identification** and/or development of an implementation strategy to support an intervention

**Contextualization** research to understand the factors impacting implementation

**Design and testing** of interventions and/or implementation strategies or bundles

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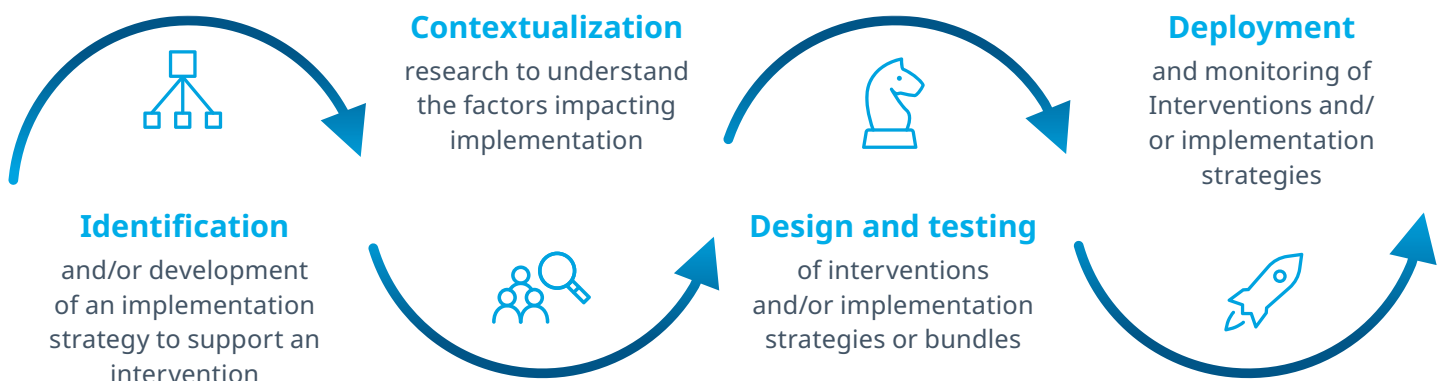
# The value for stakeholders

Improving the implementation of practices that promise better patient outcomes and have been developed with significant time and cost will provide additional potential value from patients through to pharma. However, taking the time to carefully consider these benefits helps show the full value in adopting these approaches.

### Value begins with the patients

Improved implementation of evidence increases access to a broad array of the best practices available and may reflect improved patient outcomes.

### Maximizing effort to deliver best care

Healthcare providers and caregivers supporting patients benefit from being able to deliver the best care; their efforts are maximized.

### Investing in better outcomes

While poor implementation spends money for sub-par outcomes, optimized implementation provides better outcomes for investments.

### Ensuring systematic application and routine use

Health authorities who carefully review the evidence of new practices and expect healthcare systems to use them see value in their appropriate and systematic application in routine use.

### Achieving best value through optimization

Owners of the evidence achieve value when appropriate and systematic application of their practices in routine care optimize use of their products and deliver return on investments.

**Potential obstacles**

Although Implementation Science may deliver significant value across multiple stakeholders, potential challenges can hinder its use.

Improving implementation requires careful planning and coordination across many stakeholders with different interests. This may result in missteps, such as:

- Limiting an initial contextual assessment, skipping it altogether, or not involving stakeholders with key insights in the design of the assessment

- Not investigating solution options fully, acting on preconceived ideas, or pushing a solution based on what is "at-hand"

- Getting lost in the complexity and not effectively targeting chosen solutions

- Proceeding with pilots and testing solutions but not following through to full roll out when the testing or pilot is successful (signalling that scaled or full rollout may be appropriate)

- Not taking the same care in designing the scaled or full rollout as was used in the design of the pilot (e.g., considering new contexts)

- Not seeking input and insights from all stakeholders continuously throughout the program

The effective application of Implementation Science principles can minimize these by providing the guiding structures and frameworks required to consistently optimize planning and delivery. It also promotes multi-stakeholder collaboration, engaging them throughout the process, and encouraging stakeholders to align around a common goal of delivering optimal care for patients.

The reality of conducting and delivering these studies and utilizing the insights gained requires experience to properly:

- Identify contextual factors

- Identify and/or create an effective strategy that is responsive to contextual factors that may support/ hinder implementation

- Design and deliver studies to assess outcomes and understand implications

**Where to Start**

We have described how optimized implementation can bring value to stakeholders across the healthcare sector and that the industry is learning how to fully harness its potential. By utilizing the principles of Implementation Science, a program that is resourced appropriately and involves multi-stakeholder collaboration can increase optimized implementation and unlock the available value these advances in practice have to offer.

The following case study demonstrates how Implementation Science can be used to enhance the delivery of healthcare.

## Case study

### Client Question:

How can we ensure a new treatment is prescribed correctly and efficiently to avoid inconsistencies that might impact patient outcomes?

### Challenge:

After the launch of a new treatment, access for patients often relies on appropriate prescribing of the treatment, which routinely sits within electronic medical systems. If the deployment of new treatment within systems is not completed correctly, it can create workflow inefficiencies that act as barriers to appropriate delivery of patient treatments and may result in the potential delivery of inappropriate treatment.

### IQVIA Solution:

Working across integrated data networks, specialist health information technology teams can assess the prescribing decision environment and identify prescribing inconsistencies that could compromise appropriate treatment implementation. Engaging with institutional clinical decision makers helps identify where changes can be made to remove inconsistencies, and where necessary, work can be completed to implement changes. Changes to electronic medical systems can be made in a limited fashion initially to test the resultant impacts before rolling them out across regions or full networks.



## Conclusion

Implementation Science aims to bridge the gap between evidence-based practices (EBPs) and their consistent use in routine healthcare. Even with advancements in healthcare, many EBPs do not reach patients due to barriers such as inadequate contextual assessments, preconceived solutions, or lack of follow-through. Implementation Science seeks to understand and address these challenges through rigorous study and multi-stakeholder collaboration in developing implementation strategies and contextual research, designing and testing interventions, and monitoring their deployment.

Improved implementation of EBPs benefits all stakeholders, including patients, healthcare providers, payers, health authorities, and EBP owners. By applying Implementation Science principles, challenges can be minimized, ensuring optimal care delivery and improved patient outcomes.

## References

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